SEQUENCE LISTING

<110> Juha Punnonen, et al.

<120> NOVEL CO-STIMULATORY MOLECULES

<130> 0169.310US

<140> 09/888,324
<141> 2001-06-22

<150> 60/213,946
<151> 2000-06-23

<150> 60/241,245
<151> 2000-10-17

<160> 312

<170> PatentIn Ver. 2.1

<210> 1
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

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cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 2
<211> 900
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 2
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ctgctcctgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcagcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaagtgtggc ctgagtacaa gaaccgcacc ttccccgaca tcattaacaa cctctccctt 300
atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtggt tcagaagaat 360
gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420
tcccctgtcc ctagcataac tgacattgga catcccgccc ctaatgtgaa aaggataaga 480
tgctccgcct ctggaggttt tccagagcct cgcctcgcct ggatggaaga tggagaagaa 540
ctaaacgccg tcaacacgac ggttgaccag gatttggaca cggagctcta cagcgtcagc 600
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gagctgtcgg tgtcacagat cttcccttgg agcaaaccca agcaggagcc tcccattgat 720
cagcttccat tctgggtcat tatcccagta agtggtgctt tggtgctcac tgcggtagtt 780
ctctactgcc tggcctgcag acatgttgcg aggtggaaaa gaacaagaag gaatgaagag 840
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<210> 3
<211> 900
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

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ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcagcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaagtgtggc ctgagtacaa aaaccgcacc ttccccgaca tcattaacaa cctctccctt 300
atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtggt tcagaagaat 360
gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420
ttccctgtcc ctagcataac tgacattgga catcccgccc ctaatgtgaa aaggataaga 480
tgctccgcct ctggagattt tccagagcct cgcctcgcct ggatggaaga tggagaagaa 540
ctaaacgccg tcaacacgac ggttgaccag gatttggaca cggagctcta cagcgtcagc 600
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ctctactgcc tggcctgcag acatgttgcg aggtggaaaa gaacaagaag gaatgaagag 840
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<210> 4
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 4
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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120

accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 5
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 5
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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctccgcgcaa 900
tcctcgggct ga 912

<210> 6
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180

ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
ccccccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctaccg cccggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

<210> 7
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

<210> 8
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 8
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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240

ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctctg ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 9
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 9
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cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc aggcatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 10
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 10
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cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300

ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

<210> 11
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 11
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accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggat ga 912

<210> 12
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 12
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cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360

cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggattccaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

<210> 13
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 13
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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
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tcctcgggct ga 912

<210> 14
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 14
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accaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaggaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420

atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 15
<211> 909
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 15
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacgcatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga 909

<210> 16
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 16
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480

agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 17
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 17
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgactagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 18
<211> 903
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 18
atgggccaca cgctgaggcc gggaactcca ctgcccaggt gtctacacct caagctctgc 60
ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcggcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaagtgtggc ctgagtacaa gaaccgcacc atcactgaca tgaacgataa cccccgtatt 300
gtgatcctgg ctctgcgcct gtcggacagt ggcacctaca cctgtgttat tcagaagcct 360
gttttgaaag gggcttataa actggagcac ctggcttccg tgaggttaat gatcagagct 420
gacttccctg tccctaccat aaatgatctt ggaaatccat ctcctaatat cagaaggcta 480
atttgctcaa cctctggagg ttttccaagg ccccacctct actggttgga aaatggagaa 540

gaattaaatg ctaccaacac aacagtttcc caagatcctg gaactgagct ctacatgatt 600
agcagtgaac tggatttcaa tgtgacaaat aaccacagca tcgtgtgtct catcaaatac 660
ggggagctgt cggtgtcaca gatcttccct tggagcaaac ccaagcagga gcctcccatt 720
gatcagcttc cattctgggt cattatccca gtaagtggtg ctttggtgct cactgcggta 780
gttctctact gcctggcctg cagacatgtt gcgaggtgga aaagaacaag aaggaatgaa 840
gagacagtgg gaactgaaag gctgtcccct atctacttag gctctgcgca atcctcgggc 900
tga 903

<210> 19
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 19
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcccg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 20
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 20
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc actgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600

tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
gctgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 21
<211> 909
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 21
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaaa aaccgcacct tccccgacat cattaacaac 300
ctctcccttа tgatcctggc actgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc cggagatttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gtggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga 909

<210> 22
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 22
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 23
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 23
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgcctct cctggttgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 24
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 24
atgagccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840

agaagggaaa gtgtacaccc tgtatga 867

<210> 25
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 25
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tcgggttgga aaatggggaa 540
gaaataaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaccc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgag 868

<210> 26
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 26
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 27
<211> 865
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 27
atgggccaca cacggaggca gggaatatca ccacccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtccggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaatga gacactgaga 840
agggaaagtg tacgccctgt atgac 865

<210> 28
<211> 869
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 28
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc gatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatgaaa 869

<210> 29
<211> 867
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 29
atgagccaca cacggaggca gggaatatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgaccatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat taaaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacccac tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 30
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 30
atgggccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgac 868

<210> 31
<211> 868
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 31
atgggctaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccagg 120
gaagtgaaag aagtggcaac actgtcctgt ggccacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgggct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtataag 868

<210> 32
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 32
atgagccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg gcatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggaggaggaa tgagagactg 840
agaagggaaa gtgtacaccc tgtatgag 868

<210> 33
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 33
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caatttcttt 60
cggctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctagctgaag tgacgttatc agtcaaagct 420
ggcttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 34
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 34
atgagccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcaggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagag 540
gaattaaatg ccatcaacac aacagtttcc caagaccctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacaccc tgtatgat 868

<210> 35
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 35
atgggctaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120

gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacaccc tgtatgat 868

<210> 36
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 36
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctagca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg ctcatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctacactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgaa 868

<210> 37
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 37
atgggccaca cacggaggca gggaatatca ccatccaagt gtccgtacct caatttcttt 60
cagctcttgg tgctagctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300

attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctgg cctactgctt tgccccagga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgac 868

<210> 38
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 38
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgataaag acgctttcaa gcgggaacac ctggctgaag tgacgttgtc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 39
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 39
atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
atcgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480

atttgctcaa cctctggagg ttttccagag cctcacctct tctggttgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaagagcaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 40
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 40
atgggccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgatggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctagctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggttgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatgag 868

<210> 41
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 41
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctagcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatgac 868

<210> 42
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 42
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tcttcctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag ccccacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaagaggaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgac 868

<210> 43
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 43
atgagccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcctgg tgctggctgg tctttctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840

agaagggaaa gtgtacgccc tgtatgat 868

<210> 44
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 44
atgggccaca cacggaggca gggaatatca ccatccaagt gtccgtacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcag cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaggtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 45
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 45
atgggccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatgag 868

<210> 46
<211> 867
<212> DNA
<213> Papio sp.

<400> 46
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggttgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgttt tgccccaaga tgcagagaga gaagaaggaa tgagacattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 47
<211> 867
<212> DNA
<213> Pongo pygmaeus

<400> 47
atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgatcc tggctctgcg cccatctgac gagggcacat atgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc ggtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggatg 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggttgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 48
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 48
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys

```
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 49
<211> 299
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 49

```
Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His
  1               5                  10                  15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser
             20                  25                  30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser
         35                  40                  45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr
     50                  55                  60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val
 65                  70                  75                  80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn
                 85                  90                  95

Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr
            100                 105                 110

Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu
        115                 120                 125

His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Ser Pro Val Pro
    130                 135                 140

Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys Arg Ile Arg
145                 150                 155                 160

Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met Glu
                165                 170                 175

Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp Gln Asp Leu
            180                 185                 190

Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe Asn Val Thr
        195                 200                 205

Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser Val
    210                 215                 220

Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile Asp
225                 230                 235                 240

Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val Leu
                245                 250                 255
```

```
Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg Trp
            260                 265                 270

Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu Ser
        275                 280                 285

Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295
```

<210> 50
<211> 299
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 50

```
Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His
  1               5                  10                  15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser
             20                  25                  30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser
         35                  40                  45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr
     50                  55                  60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val
 65                  70                  75                  80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn
                 85                  90                  95

Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr
            100                 105                 110

Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu
        115                 120                 125

His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe Pro Val Pro
    130                 135                 140

Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys Arg Ile Arg
145                 150                 155                 160

Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu Ala Trp Met Glu
                165                 170                 175

Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp Gln Asp Leu
            180                 185                 190
```

```
Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe Asn Val Thr
        195                 200                 205

Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser Val
    210                 215                 220

Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile Asp
225                 230                 235                 240

Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val Leu
                245                 250                 255

Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg Trp
            260                 265                 270

Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu Ser
        275                 280                 285

Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295
```

<210> 51
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 51

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
```

```
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 52
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 52

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80
```

```
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 53
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 53

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15
```

```
Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Arg Pro Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 54
<211> 303

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 54

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
```

```
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 55
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 55

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Cys Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205
```

```
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 56
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 56

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140
```

```
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 57
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 57

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
```

```
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 58
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 58

```
Met Gly His Thr Met Lys Trp Arg Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30
```

```
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 59
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 59

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Ser Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270
```

```
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 60
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 60
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
```

```
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 61
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 61
Met Gly His Thr Met Lys Trp Arg Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160
```

```
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 62
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 62

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Ala Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95
```

```
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 63
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 63

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
```

```
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 64
<211> 303
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 64

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285
```

```
Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 65
<211> 300
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 65
Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His
  1               5                  10                  15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser
             20                  25                  30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser
         35                  40                  45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr
     50                  55                  60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val
 65                  70                  75                  80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp Met Asn Asp
                 85                  90                  95

Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp Ser Gly Thr
            100                 105                 110

Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala Tyr Lys Leu
        115                 120                 125

Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp Phe Pro Val
    130                 135                 140

Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg Leu
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Val
        195                 200                 205

Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser
    210                 215                 220
```

```
Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile
225                 230                 235                 240

Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val
                245                 250                 255

Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg
            260                 265                 270

Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu
        275                 280                 285

Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 66
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 66
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Pro Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
```

```
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 67
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 67

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
             100                 105                 110
```

```
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Ala Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 68
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 68

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45
```

```
Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
 50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp
                 85                  90                  95

Ile Ile Asn Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Val Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 69
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 69

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 70
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 70
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys
20 25 30

Ser Gly Val Ile His Val Thr Asn Glu Val Lys Glu Val Ala Thr Leu
35 40 45

Ser Cys Gly His Asn Val Ser Gly Glu Glu Leu Ala Gln Thr Arg Ile
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Tyr Gly Asp
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
130 135 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145 150 155 160

Ile Cys Leu Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
165 170 175

Lys Asp Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
180 185 190

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
210 215 220

Val Asn Gln Thr Phe Ser Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225 230 235 240

```
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 71
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 71

```
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175
```

```
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285
```

<210> 72
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 72

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
```

```
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Gly Leu
                165                 170                 175

Glu Asn Gly Glu Glu Ile Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Pro Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 73
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 73

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60
```

```
Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 74
<211> 287
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 74

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Pro Lys Cys Pro Tyr
 1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 75
<211> 288

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 75

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asp Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
```

```
            260                 265                 270

Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 76
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 76

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Lys Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205
```

```
Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Pro Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 77
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 77
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160
```

```
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 78
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 78

```
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Arg Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
```

```
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Gly Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 79
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 79

```
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80
```

```
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Gly Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285
```

<210> 80
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 80

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Arg Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30
```

```
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Gly Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 81
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 81

```
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
 1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Gln
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285
```

<210> 82
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 82

```
Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
```

```
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285


<210> 83
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 83
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Ser Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205
```

```
Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 84
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 84
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Gly Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160
```

```
Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Ala Tyr Cys Phe Ala Pro Gly Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 85
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 85

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Leu Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Asp Lys Asp Ala Phe Lys Arg
```

```
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 86
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 86
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80
```

```
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 87
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 87

```
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Met Ala Cys Leu Ser His Phe Cys
             20                  25                  30
```

```
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 88
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 88

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 89
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 89
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Pro His Leu Cys
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
130 135 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
180 185 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
245 250 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
260 265 270

Glu Arg Lys Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
275 280 285

<210> 90
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 90
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
180 185 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
195 200 205

```
Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 91
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 91
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
```

```
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Arg Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 92
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 92
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125
```

```
Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 93
<211> 288
<212> PRT
<213> Papio sp.

<400> 93

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
```

```
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 94
<211> 288
<212> PRT
<213> Pongo pygmaeus

```
<400> 94
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80
```

```
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Met
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
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<210> 95
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<220>
<221> modified_base
<222> (213)
<223> A, T, C, G, other or unknown

<400> 95
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120

accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcgaaag gatagtaaaa tgntgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgtacca tcactgacat gaacgataac 300
ctccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtt ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 96
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 96
atgggtcaca caatgaagtg gggatcacta ccacccaagt gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aaccgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 97
<211> 930
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<220>
<221> modified_base
<222> (929)
<223> A, T, C, G, other or unknown

<400> 97
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaaaaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cccggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tctcgggctg aggtaccaag cttaagttna 930

<210> 98
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 98
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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attcttggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 99
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 99
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctccct 60
cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat tgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attccgggtc attatcccag taagtggtgc tttggtgctc 780
actgcgatag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 100
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 100
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912

<210> 101
<211> 909
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 101

atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctcc 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaaagag tgaaagaaac agtaatgcca tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacaacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgagctgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga 909

<210> 102
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 102
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacgaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 103
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 103
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60

cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccata g 891

<210> 104
<211> 892
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 104
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt gaaaatgcaa agttgctctc agtctccatg ag 892

<210> 105
<211> 828
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 105
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240

ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacctccgt gacactgtcc 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gcgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attgtcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtga 828

<210> 106
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 106
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcacaa 900
tcctcgggct ga 912

<210> 107
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 107
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cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420

atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgcgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912

<210> 108
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 108
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatggtg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 109
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 109
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480

aaaaggataa gatgctccgc ctctggagat tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 110
<211> 913
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 110
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact gggtttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct gag 913

<210> 111
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<220>
<221> modified_base
<222> (827)
<223> A, T, C, G, other or unknown

<400> 111
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240

ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttctgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtngaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912

<210> 112
<211> 882
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 112
atgggccaca cgctgaggcc gggaactcca ctgcccaggt gtctacacct caagctctgc 60
ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcagcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaggtgtggc ctgagtacaa gaaccgcacc atcactgaca tgaacgataa cccccgtatt 300
gtgatcctgg ctctgcgcct gtcggacagt ggcacctaca cctgtgttat tcagaagcct 360
gttttgaaag gggcttataa accggagcac ctggcttccg tgaggttaat gatcagagct 420
gacttccctg tccctaccat aaatgatctt ggaaatccat ctcctaatat cagaaggcta 480
atttgctcaa cctctggagg ttttccaagg ccccacctct actggttgga aaatggagaa 540
gaattaaatg ctaccaacac aacactgtcc caagatcctg aaaccaagct ctacatgatt 600
agcagtgaac tggatttcaa catgacaagc aatcacagct tcttgtgtct tgtcaagtat 660
ggagacttaa cagtgtcaca gaccttctac tggcaagaat ccaaaccaac cccttctgct 720
aatcagcacc tgacctggac cattattatc ccagtctcag catttgggat ttctgtgatc 780
attgcagtta tactaacatg cctgacctgc agaaatgctg caatacgcag acagagaagg 840
gagaatgaag tggaaatgca aagttgctct cagtctccat ag 882

<210> 113
<211> 906
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 113
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatccaggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatc 360

cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctactgat cttggaaatc catctcctaa tatcagaagg 480
ctaatttgct caacctctgg aggttttcca aggccccacc tctactggtt ggaaaatgga 540
gaagaattaa atgctaccaa cacaacagtt tcccaagatc ctggaactga gctctacatg 600
attagcagtg aactggattt caatgtgaca aataaccaca gcatcgtgtg tctcatcaaa 660
tacggggagc tgtcggtgtc acagatcttc ccttggagca aacccaagca ggagcctccc 720
attgatcagc ttccattctg ggtcattatc ccagtaagtg gtgctttggt gctcactgcg 780
gtagttctct actgcctggc ctgcagacat gttgcgaggt ggaaaagaac aagaaggaat 840
gaagagacag tgggaactga aaggctgtcc cctatctact taggctctgc gcaatcctcg 900
ggctga 906

<210> 114
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 114
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 115
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 115
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420

atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 116
<211> 910
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 116
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggagatttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcctagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag 910

<210> 117
<211> 903
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 117
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480

aaaaggataa gatgctccgc ctctggagat tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttttgg acacggagct ctacagcgtc 600
agcagtgaac tggatttcaa tgtgacaaat aaccacagca tcgtgtgtct catcaaatac 660
ggggagctgt cggtgtcaca gatcttccct tggagcaaac ccaagcagga gcctcccatt 720
gatcagcttc cattctgggt cattatccca gtaagtggtg ctttggtgct cactgcggta 780
gttctctact gcctggcctg cagacatgtt gcgaggtgga aaagaacaag aaggaatgaa 840
gagacagtgg gaactgaaag gctgtcccct atctacttag gctctgcgca accctcgggc 900
tga 903

<210> 118
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 118
atgggtcaca caatggagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttagaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 119
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 119
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgccc 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540

gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 120
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 120
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcagtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 121
<211> 913
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 121
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggagat tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600

tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct gag 913

<210> 122
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 122
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggagat tttccagagc ctcgcctcgc ctggatggaa 540
gatggggaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagcggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912

<210> 123
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 123
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660

atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctccgcgcaa 900
tcctcgggct ga 912

<210> 124
<211> 909
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 124
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaaa aaccgcacct tccccgacat cattaacaac 300
ctctccctta tgatcctggc actgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtctc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcattgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctga 909

<210> 125
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 125
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720

cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 126
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 126
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactga tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg caaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 127
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 127
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tcttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780

actgcggcag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912

<210> 128
<211> 903
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 128
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttaaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcagg ttttccaagg ccccacctct actggttgga aaatggagaa 540
gaattaaatg ctaccaacac aacagtttcc caagatcctg gaactgagct ctacatgatt 600
agcagtgaac tggatttcaa tgtgacaaat aaccacagca tcgtgtgtct catcaaatac 660
ggggagctgt cggtgtcaca gatcttccct tggagcaaac ccaagcagga gcctcccatt 720
gatcagcttc cattctgggt cattatccca gtaagtggtg ctttggtgct cactgcggta 780
gttctctact gcctggcctg cagacatgtt gcgaggtgga aaagaacaag aaggaatgaa 840
gagacagtgg gaactgaaag gctgtcccct atctacttag gctctgcgca atcctcgggc 900
tga 903

<210> 129
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 129
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc actgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840

aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 130
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 130
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ag 912

<210> 131
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 131
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagg gaaatgcaaa gtgctctcag tctccatagg taccaagctt 900

aagtttaacc gc 912

<210> 132
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 132
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctagcata actgacattg gacatcccgc ccctaatgtg 480
aaaaggataa gatgctccgc ctctggaggt tttccagagc ctcgcctcgc ctggatggaa 540
gatggagaag aactaaacgc cgtcaacacg acggttgacc aggatttgga cacggagctc 600
tacagcgtca gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atctttcctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 133
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 133
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag tccttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 134
<211> 909
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 134
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctag 909

<210> 135
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 135
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcaccacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcccg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 136

<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 136
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accgcagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 137
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 137
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac acgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 138
<211> 912
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 138
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tggcttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acagtttccc aagatcctgg aactgagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc aggcatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 139
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 139
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggaaaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 140
<211> 910
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 140
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag 910

<210> 141
<211> 912
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 141
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ccggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaat gtgacaaata accacagcat cgtgtgtctc 660
atcaaatacg gggagctgtc ggtgtcacag atcttccctt ggagcaaacc caagcaggag 720
cctcccattg atcagcttcc attctgggtc attatcccag taagtggtgc tttggtgctc 780
actgcggtag ttctctactg cctggcctgc agacatgttg cgaggtggaa aagaacaaga 840
aggaatgaag agacagtggg aactgaaagg ctgtccccta tctacttagg ctctgcgcaa 900
tcctcgggct ga 912

<210> 142
<211> 882
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 142
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg ttttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atttgtgtct tgtcaagtat 660
ggagacttaa cagtgtcaca gaccttctac tggcaagaat ccaaaccaac cccttctgct 720
aatcagcacc tgacctggac cattattatc ccagtctcag catttgggat ttctgtgatc 780
attgcagtta tactaacatg cctgacctgc agaaatgctg caatacgcag acagagaagg 840
gagaatgaag tggaaatgca aagttgctct cagtctccat ga 882

<210> 143
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 143
atgagccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagttcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgcacgccc tgtatga 867

<210> 144
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 144
atgggctaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactccca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctaccgctt tgccccaaga tgcagagaga gaaggaggaa tgagaggctg 840
agaagggaaa gtgtatgccc tgtatgag 868

<210> 145
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 145
atgggctaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttcccac ttctgttcag gtgttatcca cgtgaccaag 120
aaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgaatgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc gatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgggagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 146
<211> 868
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 146
atgagccaca cacagaggca gggaatatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120

gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggagcac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag ccccacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatgctgtc 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagagattg 840
agaagggaaa gtgtacaccc tgtatgag 868

<210> 147
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 147
atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcat ctctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccga cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccagga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatag 867

<210> 148
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 148
atgagccaca tacggaggca gggaatatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300

attgtgattc tggctctgcg cccatccgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgcctcg cctggatgga agatggagaa 540
gaactaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgt tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 149
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 149
atgagccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcccaatg tttccgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatag 867

<210> 150
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 150
atgagccaca cacggaggca gggaatatca tcatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
aaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggggaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagtg caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgc tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480

atttgctcaa cctctggagg ttttccagag cctcacctct tctggttgga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 151
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 151
atgggctaca cacggaggca gggaacatca ccatccgagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca catgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgccttcaa gcgggaacac ctggctgaag tgatgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgggct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 152
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 152
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caatttcttt 60
cggctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgagaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 153
<211> 901
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<220>
<221> modified_base
<222> (893)..(894)
<223> A, T, C, G, other or unknown

<400> 153
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagca caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactggt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcagc tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagaccctg 840
agaagggaaa gtgtacgccc tgtatggggt accaagctta agtttaaacc gcnnatcagc 900
c 901

<210> 154
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 154
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctag tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagca caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480

atttgctcaa cctccggagg ttttcctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaacg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aatcacagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 155
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 155
atgggctaca cacggaggca gggaacatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctagctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg ttcctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgggtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacctt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggttgga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cttactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacaccc tgtatga 867

<210> 156
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 156
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aggtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggataag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccag accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcaggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgcctcg cctggatgga agatggagaa 540
gaactaaatg ccatcagcac aacagtttcc caagatcctg gaactgagct ctgtactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaggtat 660

ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaagggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga ggcagagaga gaaagagcaa tgggagactg 840
agaagggaaa gtgtacaccc tgtatga 867

<210> 157
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<220>
<221> modified_base
<222> (599)
<223> A, T, C, G, other or unknown

<400> 157
atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatgctgnt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcgg taaatggaat ttttgtgata 780
tgctgcccga cctactgctt tgccccaagg tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867

<210> 158
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 158
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcta cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgattatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat aggagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540

gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867

<210> 159
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 159
atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgggtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagcgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 160
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 160
atgggctaca cacggaggca gggaacatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
gttgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720

gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 161
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 161
atgggctaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgcctcg cctggatgga agatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggattttaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttctgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867

<210> 162
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 162
atgagccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgctga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgcctcg cctggatgga agatggagaa 540
gaactaaatg ccatcagcac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaact aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cccactgttt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867

<210> 163
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 163
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtctcaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtatgccc tgtatga 867

<210> 164
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 164
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cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgatga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatccta ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccgaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtatacaccc tgtatga 867

<210> 165

<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 165
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cagctcttgg tgctggctgg tctttctcat ctctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgccctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacaact tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 166
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 166
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cagctcttgg tgctggctgg tctttctcat ctctgttcag gtgttatcca catgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgctctgaag 360
tatgaaaaag atgctttcaa gcaggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcgcctcg cctggatgga agatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacagcc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtatgccc tgtatga 867

<210> 167
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 167
atgggccaca cacggaggca gggaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg ggctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cctatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaagg acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct tctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctac tcccatcctg ggccattacc ttaatctcag taaatggaat tttcgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 168
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 168
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cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcggaaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct tctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
aataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga ggagaaggaa tgagacactg 840
agaagggaaa gtgtacaccc tgtatga 867

<210> 169
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

nucleotide sequence

<400> 169
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cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagca caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat aactgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagggaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 170
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 170
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cagctcttgg tgctggctag tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gcctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgagg 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctccggagg ttttcctgag cctcacctct cctggctgga aaatggggaa 540
gaattaaatg ccatcaacac aacagcttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag caaatggaat ttttgtgata 780
tgctgcctga cccactgctt cgccccaaga tgcagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatag 867

<210> 171
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 171

atgagccaca cacggaggca gggaatatca ccatccaagt gtccgtacct caagttcttt 60
cagctcttgg tgctggctgg tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tccactggca aaaggagaag aaaatggtgc tgactatgat gtctgggggc 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctagctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttccagag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcgcagtt ttgtgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatag 867

<210> 172
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 172
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cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac actgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctggag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctgg cctactgctt tgccccaaga tgcagaggga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 173
<211> 867
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 173
atgggccaca cacggaggca gggaacatca ccatccaagt gtccgtacct caatttcttt 60
cagctcttgg tgctggcttg tctttctcac ttctgttcag gtgttatcca cgtgactaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180

caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgagaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccac cttctaacat tagaaggata 480
atttgctcaa cccctggagg ttttccagag cctcgcctcg cctggatgga agatggggaa 540
gaactaaatg ccatcagcac aacagtttcc caagatcctg gaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ctaatctcag taaagggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tggagagaga gaaagagcaa tgagagactg 840
agaagggaaa gtgtacgccc tgtatag 867

<210> 174
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (75)
<223> Variable amino acid

<400> 174
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60

Arg Ile Tyr Trp Arg Lys Asp Ser Lys Met Xaa Leu Ala Ile Leu Pro
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
85 90 95

Met Asn Asp Asn Leu Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
115 120 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile

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145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Leu Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
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<210> 175
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 175

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Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Cys Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95
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Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 176
<211> 310
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<220>
<221> MOD_RES
<222> (310)
<223> Variable amino acid

<400> 176
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
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  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Lys Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Pro Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Arg Ala Glu
    290                 295                 300

Val Pro Ser Leu Ser Xaa
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305 310

<210> 177
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 177
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
130 135 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145 150 155 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
165 170 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
180 185 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
195 200 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225 230 235 240

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Pro Pro Ile Asp Gln Leu Pro Phe Leu Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 178
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 178

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Pro Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175
```

```
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Arg Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Ile Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 179
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 179

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
```

```
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 180
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 180
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Pro Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60
```

```
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 181
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 181
```

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
 1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 182
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 182

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
```

```
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295


<210> 183
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 183
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190
```

```
Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Lys
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 184
<211> 275
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 184

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125
```

```
Tyr Lys Leu Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Ala Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Val Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg
        275
```

<210> 185
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 185

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
```

```
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 186
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 186
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Pro Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30
```

```
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Ala Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 187
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 187

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270
```

```
Gly Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 188
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 188
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
```

```
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 189
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 189
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160
```

```
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Gly
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 190
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (276)
<223> Variable amino acid

<400> 190

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
```

```
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Xaa Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 191
<211> 293
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 191
Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His
  1               5                  10                  15
```

```
Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser
            20                  25                  30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser
        35                  40                  45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr
    50                  55                  60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val
65                  70                  75                  80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp Met Asn Asp
                85                  90                  95

Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp Ser Gly Thr
            100                 105                 110

Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala Tyr Lys Pro
        115                 120                 125

Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp Phe Pro Val
    130                 135                 140

Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg Leu
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser Gln Asp
            180                 185                 190

Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Met
        195                 200                 205

Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp Leu Thr
    210                 215                 220

Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro Ser Ala
225                 230                 235                 240

Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala Phe Gly
                245                 250                 255

Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys Arg Asn
            260                 265                 270

Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met Gln Ser
        275                 280                 285

Cys Ser Gln Ser Pro
    290
```

<210> 192

<211> 301
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 192
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Gln Ala Leu Arg Leu Ser Asp
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
130 135 140

Phe Pro Val Pro Thr Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg
145 150 155 160

Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp
165 170 175

Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val Ser Gln
180 185 190

Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn
195 200 205

Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu
210 215 220

Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro
225 230 235 240

Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu
245 250 255

```
Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala
            260                 265                 270

Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg
        275                 280                 285

Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 193
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 193

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
```

```
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 194
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 194

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
 1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140
```

```
Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 195
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 195

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80
```

```
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Leu Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 196
<211> 300
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 196

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
```

```
                20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe Asn Val
        195                 200                 205

Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser
    210                 215                 220

Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile
225                 230                 235                 240

Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val
                245                 250                 255

Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg
            260                 265                 270

Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu
        275                 280                 285

Ser Pro Ile Tyr Leu Gly Ser Ala Gln Pro Ser Gly
    290                 295                 300
```

<210> 197
<211> 303
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 197

```
Met Gly His Thr Met Glu Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270
```

```
Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 198
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 198

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205
```

```
Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 199
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 199
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
```

```
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 200
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 200

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95
```

```
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 201
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 201
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30
```

```
Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 202
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 202

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
 1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
```

```
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 203
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 203
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp
                 85                  90                  95

Ile Ile Asn Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Ser Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220
```

```
Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 204
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 204
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160
```

```
Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 205
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 205

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Asp Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
```

```
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 206
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 206

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45
```

```
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Ala Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 207
<211> 300
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<400> 207

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
 1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Gly Phe Pro Arg Pro His Leu Tyr Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Val
        195                 200                 205

Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser
    210                 215                 220

Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile
225                 230                 235                 240

Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val
                245                 250                 255

Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg
            260                 265                 270

Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu
        275                 280                 285
```

```
Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 208
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 208
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
```

```
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 209
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 209
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175
```

```
Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 210
<211> 304
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 210

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110
```

```
Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Gly Lys
        275                 280                 285

Cys Lys Val Leu Ser Val Ser Ile Gly Thr Lys Leu Lys Phe Asn Arg
    290                 295                 300


<210> 211
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 211
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
```

```
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 212
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 212

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Ser Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 213
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 213

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240
```

```
Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 214
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 214

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Thr Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Pro Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
```

```
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 215
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 215

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125
```

```
Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn Arg Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 216
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 216

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60
```

```
Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Thr Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 217
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 217
```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
```

```
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 218
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 218

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Lys Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255
```

```
Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295


<210> 219
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 219
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190
```

```
Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 220
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 220

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Arg Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
```

```
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 221
<211> 293
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 221
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80
```

```
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn Leu Cys Leu Val Lys Tyr Gly Asp Leu Thr
    210                 215                 220

Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro Ser Ala
225                 230                 235                 240

Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala Phe Gly
                245                 250                 255

Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys Arg Asn
            260                 265                 270

Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met Gln Ser
        275                 280                 285

Cys Ser Gln Ser Pro
    290
```

<210> 222
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 222

```
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15
```

```
Leu Lys Phe Phe Gln Phe Leu Val Leu Ala Ser Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

Tyr Trp Gln Lys Gly Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Ala Arg Pro Val
        275                 280                 285
```

<210> 223
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 223

```
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Pro Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
```

275 280 285

<210> 224
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 224
Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
1 5 10 15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
20 25 30

Ser Gly Val Ile His Val Thr Lys Lys Val Lys Glu Val Ala Thr Leu
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
50 55 60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
115 120 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
180 185 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
195 200 205

Thr Thr Asp Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225 230 235 240

```
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Gly Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 225
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 225
Met Ser His Thr Gln Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190
```

```
Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285


<210> 226
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 226
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
```

```
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Gly Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 227
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 227

```
Met Ser His Ile Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110
```

```
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
                165                 170                 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Phe Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 228
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 228

```
Met Ser His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Pro Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60
```

```
Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 229
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 229

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Ser Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
```

```
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Lys Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Gly Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Cys Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Ala Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 230
<211> 288
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 230

```
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Glu Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Gly Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 231
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 231

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Arg Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240
```

```
Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 232
<211> 300
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<220>
<221> MOD_RES
<222> (298)
<223> Variable amino acid

<400> 232
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu His Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175
```

```
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Gly Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Ser Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285

Trp Gly Thr Lys Leu Lys Phe Lys Pro Xaa Ile Ser
    290                 295                 300
```

<210> 233
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 233

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu His Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110
```

```
Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 234
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 234
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Pro Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
```

```
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Gly Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Leu Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285
```

<210> 235
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 235

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30
```

```
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Asp Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Gln Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Gln
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
                165                 170                 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Cys Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Arg Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Lys Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Gly Arg
            260                 265                 270

Glu Arg Lys Ser Asn Gly Arg Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285
```

<210> 236
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic

peptide

<220>
<221> MOD_RES
<222> (200)
<223> Variable amino acid

<400> 236

```
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Xaa Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Pro Thr Tyr Cys Phe Ala Pro Arg Cys Arg
```

```
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285


<210> 237
<211> 287
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 237
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile Tyr Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Ile Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu
        115                 120                 125

His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro
    130                 135                 140

Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile Ile
145                 150                 155                 160

Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu Glu
                165                 170                 175

Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro
            180                 185                 190

Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met Thr
        195                 200                 205

Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val
    210                 215                 220
```

```
Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro Asp
225                 230                 235                 240

Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly Ile
                245                 250                 255

Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg Glu
            260                 265                 270

Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 238
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 238

```
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Gly Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175
```

```
Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Ala Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 239
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 239
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Val Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
```

```
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 240
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 240
Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95
```

```
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
                165                 170                 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Ser Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285


<210> 241
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 241
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45
```

```
Ser Cys Gly His Asn Val Ser Ala Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
                165                 170                 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 242
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 242
```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
```

```
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 243
<211> 287
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 243

```
Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Asp Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Ala Ile Thr Leu Ile Ser Ala Asn Gly Ile
                245                 250                 255

Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg Glu
            260                 265                 270
```

```
Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Ile His Pro Val
        275                 280                 285


<210> 244
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 244
Met Gly Tyr Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Pro Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Asn Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220
```

```
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 245
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 245
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Leu Cys
            20                  25                  30

Ser Gly Val Ile His Met Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Ala Leu Lys Tyr Glu Lys Asp Ala Phe Lys Gln
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
                165                 170                 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
```

```
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285


<210> 246
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 246
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
 1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Gly Leu Ala Cys Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Leu Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140
```

```
Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 247
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 247
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95
```

```
Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Lys His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asn Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val His Pro Val
        275                 280                 285


<210> 248
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 248
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
```

```
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu His Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 249
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 249

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15
```

```
Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Ser Leu Ser His Phe Cys
            20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
        35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
    50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Pro Gly Asp
65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Arg Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Ala Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 250
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 250

```
Met Ser His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Gly
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn Arg Ser Phe Val Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270
```

```
Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 251
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 251
Met Gly Tyr Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Glu Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
```

```
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Ala Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Gly Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 252
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 252
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Pro Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met
                165                 170                 175

Glu Asp Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190
```

```
Pro Gly Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Lys Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Trp Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 253
<211> 880
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 253
atgggccaca cgctgaggcc gggaactcca ctgcccaggt gtctacacct caagctctgc 60
ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcagcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaagtgtggc ctgagtacaa aaaccgcacc ttccccgaca tcattaacaa cctctccctt 300
atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtggt tcagaagaat 360
gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420
ttccctgtcc ctagcataaa tgatcttgga aatccatctc ctaatatcag aaggctaatt 480
tgctcaacct ctggaggttt tccaaggccc cacctctact ggttggaaaa tggagaagaa 540
ttaaatgcta ccaacacaac actgtcccaa gatcctgaaa ccaagctcta catgattagc 600
agtgaactgg atttcaacat gacaagcaat cacagcttct tgtgtcttgt caagtatgga 660
gacttaacag tgtcacagac cttctactgg caagaatcca aaccaacccc ttctgctaat 720
cagcacctga cctggaccat tattatccca gtctcagcat ttgggatttc tgtgatcatt 780
gcagttatac taacatgcct gacctgcaga aatgctgcaa tacgcagaca gagaagggag 840
aatgaagtgg aaatgcaaag ttgctctcag tctccatgag   880

<210> 254
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic nucleotide sequence

<400> 254

atgggtcaca caatggagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgcg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccata g 891

<210> 255
<211> 889
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 255
atgggccaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgag gttaatgatc 420
agagctgact tccctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480
aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgccccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtcacagacc ttctactggc aagaatccaa accaacccct 720
tctgctaatc agcacctgac ctggaccatt attatcccag tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga aatgcaaagt tgctctcagt ctccatgag 889

<210> 256
<211> 888
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 256
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180

ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cttccgtgag gttaatgatc 420
agagctgact tccctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480
aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgtcccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtcgcagacc ttctactggc aagaatccaa accaacccct 720
tctgctaatc agcacctgac ctggaccatt attatcccag tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga gatgcaaagt tgctctcagt ctccatag 888

<210> 257
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 257
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 258
<211> 910
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 258
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360

cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca gtttcccaag atcctggaac tgagctctac 600
atgattagca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcctgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag 910

<210> 259
<211> 888
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 259
atggatcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact ttcctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480
aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgtcccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtcacagacc ttctactggc aagaatccaa accaacccct 720
tctgctaatc agcacctgac ctggaccatt attatcccgg tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga aatgcaaagt tgctctcagt ctccatag 888

<210> 260
<211> 888
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 260
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgcccactgg tctttttttac ttctgttcag gtatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcgcctg tcggacaagg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc taccataaat gatcttggaa atccatctcc taatatcaga 480

aggctaattt gctcaacctc tggaggtttt ccaaggcccc acctctactg gttggaaaat 540
ggagaagaat taaatgctac caacacaaca ctgtcccaag atcctgaaac caagctctac 600
atgattagca gtgaactgga tttcaacatg acaagcaatc acagcttctt gtgtcttgtc 660
aagtatggag acttaacagt gtcacagacc ctctactggc aagaatccaa accaacccct 720
tctgctaatc agcacctgac ctggaccatt attatcccag tctcagcatt tgggatttct 780
gtgatcattg cagttatact aacatgcctg acctgcagaa atgctgcaat acgcagacag 840
agaagggaga atgaagtgga aatgcaaagt tgctctcagt ctccatga 888

<210> 261
<211> 891
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 261
atgggtcaca cagtgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaag aaccgcacca tcactgacat gaacgataac 300
ccccgtattg tgatcctggc tctgcccctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatgcaa agttgctctc agtctccatg a 891

<210> 262
<211> 910
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
nucleotide sequence

<400> 262
atgggtcaca caatgaagtg gggatcacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120
accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acagcacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgagtacaaa aaccgcacct tccccgacat cattaacaac 300
ctctccctta tgatcctggc actgcgcctg tcggacaggg gcacctacac ctgcgtggtt 360
cagaagaatg agaacgggtc tttcagacgg gagcacctga cctccgtgac actgtccatc 420
agagctgact tccctgtccc tagcataact gacattggac atcccgcccc taatgtgaaa 480
aggataagat gctccgcctc tggaggtttt ccagagcctc gcctcgcctg gatggaagat 540
ggagaagaac taaacgccgt caacacgacg gttgaccagg atttggacac ggagctctac 600
agcgtcggca gtgaactgga tttcaatgtg acaaataacc acagcatcgt gtgtctcatc 660

```
aaatacgggg agctgtcggt gtcacagatc ttcccttgga gcaaacccaa gcaggagcct 720
cccattgatc agcttccatt ctgggtcatt atcccagtaa gtggtgcttt ggtgctcact 780
gcggtagttc tctactgcct ggcccgcaga catgttgcga ggtggaaaag aacaagaagg 840
aatgaagaga cagtgggaac tgaaaggctg tcccctatct acttaggctc tgcgcaatcc 900
tcgggctgag                                                       910


<210> 263
<211> 292
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 263
Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His
  1               5                  10                  15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser
             20                  25                  30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser
         35                  40                  45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr
     50                  55                  60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val
 65                  70                  75                  80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn
                 85                  90                  95

Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr
            100                 105                 110

Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu
        115                 120                 125

His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe Pro Val Pro
    130                 135                 140

Ser Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg Arg Leu Ile
145                 150                 155                 160

Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr Trp Leu Glu
                165                 170                 175

Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser Gln Asp Pro
            180                 185                 190

Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe Asn Met Thr
        195                 200                 205

Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp Leu Thr Val
```

```
    210                 215                 220

Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro Ser Ala Asn
225                 230                 235                 240

Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala Phe Gly Ile
                245                 250                 255

Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys Arg Asn Ala
            260                 265                 270

Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met Gln Ser Cys
        275                 280                 285

Ser Gln Ser Pro
    290
```

<210> 264
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 264

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Met Gly His Thr Met Glu Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Ala Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160
```

```
Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 265
<211> 295
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 265

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95
```

```
Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg
145                 150                 155                 160

Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr
                165                 170                 175

Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Pro
            180                 185                 190

Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp
    210                 215                 220

Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro
225                 230                 235                 240

Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala
                245                 250                 255

Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys
            260                 265                 270

Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met
        275                 280                 285

Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 266
<211> 295
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 266

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
```

```
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg
145                 150                 155                 160

Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr
                165                 170                 175

Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser
            180                 185                 190

Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp
    210                 215                 220

Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro
225                 230                 235                 240

Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala
                245                 250                 255

Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys
            260                 265                 270

Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met
        275                 280                 285

Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 267
<211> 296
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 267

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285
```

```
Met Gln Ser Cys Ser Gln Ser Pro
    290                 295


<210> 268
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 268
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Tyr
                165                 170                 175

Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val Ser
            180                 185                 190

Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220
```

```
Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300


<210> 269
<211> 295
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      peptide

<400> 269
Met Asp His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg
145                 150                 155                 160

Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr
```

```
                165                 170                 175

Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser
            180                 185                 190

Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp
    210                 215                 220

Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr Pro
225                 230                 235                 240

Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala
                245                 250                 255

Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys
            260                 265                 270

Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met
        275                 280                 285

Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 270
<211> 295
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 270

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Pro Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
             100                 105                 110
```

```
Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile Arg
145                 150                 155                 160

Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu Tyr
                165                 170                 175

Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu Ser
            180                 185                 190

Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp Phe
        195                 200                 205

Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asp
    210                 215                 220

Leu Thr Val Ser Gln Thr Leu Tyr Trp Gln Glu Ser Lys Pro Thr Pro
225                 230                 235                 240

Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser Ala
                245                 250                 255

Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr Cys
            260                 265                 270

Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu Met
        275                 280                 285

Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 271
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 271

```
Met Gly His Thr Val Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45
```

```
Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Pro Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 272
<211> 302
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 272

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
 1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
        35                  40                  45

Met Leu Ser Cys Asp Tyr Ser Thr Ser Thr Glu Glu Leu Thr Ser Leu
    50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp
                85                  90                  95

Ile Ile Asn Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Arg Gly Thr Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe
        115                 120                 125

Arg Arg Glu His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe
    130                 135                 140

Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys
145                 150                 155                 160

Arg Ile Arg Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala
                165                 170                 175

Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp
            180                 185                 190

Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Gly Ser Glu Leu Asp Phe
        195                 200                 205

Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu
    210                 215                 220

Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro
225                 230                 235                 240

Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala
                245                 250                 255

Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Arg Arg His Val
            260                 265                 270

Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu
        275                 280                 285

Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
```

290 295 300

<210> 273
<211> 867
<212> DNA
<213> Homo sapiens

<400> 273
atgggccaca cacggaggca gggaacatca ccatccaagt gtccatacct caatttcttt 60
cagctcttgg tgctggctgg tctttctcac ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcactaa taacctctcc 300
attgtgatcc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag acgctttcaa gcgggaacac ctggctgaag tgacgttatc agtcaaagct 420
gacttcccta cacctagtat atctgacttt gaaattccaa cttctaatat tagaaggata 480
atttgctcaa cctctggagg ttttcctgag cctcacctct cctggctgga aaatggagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctatgctgtt 600
agcagcaaac tggatttcaa tatgacaacc aaccacagct tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaatacaa ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattacc ttaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgctt tgccccaaga tgcagagaga gaaggaggaa tgagagattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 274
<211> 867
<212> DNA
<213> Macaca sp.

<400> 274
atgggccaca cacggaggca ggaaatatca ccatccaagt gtccatacct caagttcttt 60
cagctcttgg tgctggcttg tctttctcat ttctgttcag gtgttatcca cgtgaccaag 120
gaagtgaaag aagtggcaac gctgtcctgt ggtcacaatg tttctgttga agagctggca 180
caaactcgca tctactggca aaaggagaag aaaatggtgc tgactatgat gtctggggac 240
atgaatatat ggcccgagta caagaaccgg accatctttg atatcacaaa taacctctcc 300
attgtgattc tggctctgcg cccatctgac gagggcacat acgagtgtgt tgttctgaag 360
tatgaaaaag atgctttcaa gcgggaacac ctggctgaag tgatgttatc cgtcaaagct 420
gacttcccta cacctagtat aactgactct gaaattccac cttctaacat tagaaggata 480
atttgctcaa actctggagg ttttccagag cctcacctct cctggttgga aaatggagaa 540
gaattaaatg ccatcagcac aacagtttcc caagatcctg aaactgagct ctatactgtt 600
agcagcaaac tggatttcaa tatgacaacc aatcacagtt tcatgtgtct catcaagtat 660
ggacatttaa gagtgaatca gaccttcaac tggaacacac ccaagcaaga gcattttcct 720
gataacctgc tcccatcctg ggccattatc ctaatctcag taaatggaat ttttgtgata 780
tgctgcctga cctactgttt tgccccaagg tgcagagaga gaagaaggaa tgagacattg 840
agaagggaaa gtgtacgccc tgtatga 867

<210> 275
<211> 888
<212> DNA
<213> Bovine sp.

<400> 275
atgggtcaca caatgaagtg gggaacacta ccacccaagc gcccatgcct ctggctctct 60
cagctcttgg tgctcactgg tctttttttac ttctgttcag gcatcacccc aaagagtgtg 120

accaaaagag tgaaagaaac agtaatgcta tcctgtgatt acaacacatc cactgaagaa 180
ctgacaagcc ttcggatcta ttggcaaaag gatagtaaaa tggtgctggc catcctgcct 240
ggaaaagtgc aggtgtggcc tgaatacaag aaccgcacca tcactgacat gaacgataac 300
ccccgcattg tgatcctggc tctgcgcctg tcggacagtg gcacctacac ctgtgttatt 360
cagaagcctg atttgaaagg ggcttataaa ctggagcacc tgacttccgt gaggttaatg 420
atcagagctg acttccctgt ccctaccata aatgatcttg gaaatccatc tcctaatatc 480
agaaggctaa tttgctcaac ctctggaggt tttccaaggc cccacctcta ctggttggaa 540
aatggagaag aattaaatgc taccaacaca acactgtccc aagatcctga aaccaagctc 600
tacatgatta gcagtgaact ggatttcaac atgacaagca atcacagctt cttgtgtctt 660
gtcaagtatg gagacttaac agtgtcacag accttctact ggcaagaatc caaaccaacc 720
ccttctgcta atcagcacct gacctggacc attattatcc cagtctcagc atttgggatt 780
tctgtgatca ttgcagttat actaacatgc ctgacctgca gaaatgctgc aatacgcaga 840
cagagaaggg agaatgaagt ggaaatggaa agttgctctc agtctcca 888

<210> 276
<211> 900
<212> DNA
<213> Oryctolagus cuniculus

<400> 276
atgggccaca cgctgaggcc gggaactcca ctgcccaggt gtctacacct caagctctgc 60
ctgctcttgg cgctggcggg tctccacttc tcttcaggta tcagccaggt caccaagtcg 120
gtgaaagaaa tggcagcact gtcctgtgat tacaacattt ctatcgatga actggcgaga 180
atgcgcatat actggcagaa ggaccaacag atggtgctga gcatcatctc tgggcaagtg 240
gaagtgtggc ctgagtacaa gaaccgcacc ttccccgaca tcattaacaa cctctccctt 300
atgatcctgg cactgcgcct gtcggacaag ggcacctaca cctgcgtggt tcagaagaat 360
gagaacgggt ctttcagacg ggagcacctg acctccgtga cactgtccat cagagctgac 420
ttccctgtcc ctagcataac tgacattgga catcccgacc ctaatgtgaa aaggataaga 480
tgctccgcct ctggaggttt tccagagcct cgcctcgcct ggatggaaga tggagaagaa 540
ctaaacgccg tcaacacgac ggttgaccag gatttggaca cggagctcta cagcgtcagc 600
agtgaactgg atttcaatgt gacaaataac cacagcatcg tgtgtctcat caaatacggg 660
gagctgtcgg tgtcacagat cttcccttgg agcaaaccca agcaggagcc tcccattgat 720
cagcttccat tctgggtcat tatcccagta agtggtgctt tggtgctcac tgcggtagtt 780
ctctactgcc tggcctgcag acatgttgcg aggtggaaaa gaacaagaag gaatgaagag 840
acagtgggaa ctgaaaggct gtcccctatc tacttaggct ctgcgcaatc ctcgggctga 900

<210> 277
<211> 941
<212> DNA
<213> Felis domesticus

<400> 277
atgggtcacg cagcaaagtg gaaaacacca ctactgaagc acccatatcc caagctcttt 60
ccgctcttga tgctagctag tctttttac ttctgttcag gtatcatcca ggtgaacaag 120
acagtggaag aagtagcagt actatcctgt gattacaaca tttccaccaa agaactgacg 180
gaaattcgaa tctattggca aaaggatgat gaaatggtgt tggctgtcat gtctggcaaa 240
gtacaagtgt ggcccaagta caagaaccgc acattcactg acgtcaccga taaccactcc 300
attgtgatca tggctctgcg cctgtcagac aatggcaaat acacttgtat tattcaaaag 360
attgaaaaag ggtcttacaa agtgaaacac ctgacttcgg tgatgttatt ggtcagagct 420
gacttccctg tccctagtat aactgatctt ggaaatccat ctcataacat caaaaggata 480
atgtgcttaa cttctggagg ttttccaaag cctcacctct cctggctgga aaatgaagaa 540
gaattaaatg ccatcaacac aacagtttcc caagatcctg aaactgagct ctacactatt 600
agcagtgaac tggatttcaa tatgacaaac aaccatagct tcctgtgtct tgtcaagtat 660
ggaaacttac tagtatcaca gatcttcaac tggcaaaaat cagagccaca gccttctaat 720
aatcagctct ggatcattat cctgagctca gtagtaagtg ggattgttgt gatcactgca 780

cttaccttaa gatgcctagt ccacagacct gctgcaaggt ggagacaaag agaaatgggg 840
agagcgcgga aatggaaaag atctcacctg tctacataga ttctgcagaa ccactgtatg 900
cagagcatct ggaggtagcc tctttagctc ttctctacta g 941

<210> 278
<211> 288
<212> PRT
<213> Homo sapiens

<400> 278
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
1 5 10 15

Leu Asn Phe Phe Gln Leu Leu Val Leu Ala Gly Leu Ser His Phe Cys
20 25 30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
35 40 45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
50 55 60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
65 70 75 80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
85 90 95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
100 105 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
115 120 125

Glu His Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr
130 135 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile
145 150 155 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
165 170 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
180 185 190

Pro Glu Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met
195 200 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
210 215 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro
225 230 235 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly

```
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 279
<211> 288
<212> PRT
<213> Macaca sp.

<400> 279

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Leu Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro Arg Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Ser Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220
```

```
Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr His Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Thr Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285


<210> 280
<211> 296
<212> PRT
<213> Bovine sp.

<400> 280
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205
```

```
Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Glu
        275                 280                 285

Met Gln Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 281
<211> 299
<212> PRT
<213> Oryctolagus cuniculus

<400> 281

```
Met Gly His Thr Leu Arg Pro Gly Thr Pro Leu Pro Arg Cys Leu His
  1               5                  10                  15

Leu Lys Leu Cys Leu Leu Leu Ala Leu Ala Gly Leu His Phe Ser Ser
            20                  25                  30

Gly Ile Ser Gln Val Thr Lys Ser Val Lys Glu Met Ala Ala Leu Ser
        35                  40                  45

Cys Asp Tyr Asn Ile Ser Ile Asp Glu Leu Ala Arg Met Arg Ile Tyr
    50                  55                  60

Trp Gln Lys Asp Gln Gln Met Val Leu Ser Ile Ile Ser Gly Gln Val
65                  70                  75                  80

Glu Val Trp Pro Glu Tyr Lys Asn Arg Thr Phe Pro Asp Ile Ile Asn
                85                  90                  95

Asn Leu Ser Leu Met Ile Leu Ala Leu Arg Leu Ser Asp Lys Gly Thr
            100                 105                 110

Tyr Thr Cys Val Val Gln Lys Asn Glu Asn Gly Ser Phe Arg Arg Glu
        115                 120                 125

His Leu Thr Ser Val Thr Leu Ser Ile Arg Ala Asp Phe Pro Val Pro
    130                 135                 140

Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val Lys Arg Ile Arg
145                 150                 155                 160

Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro Arg Leu Ala Trp Met Glu
```

```
                165                 170                 175

Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val Asp Gln Asp Leu
            180                 185                 190

Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp Phe Asn Val Thr
        195                 200                 205

Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly Glu Leu Ser Val
    210                 215                 220

Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu Pro Pro Ile Asp
225                 230                 235                 240

Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly Ala Leu Val Leu
                245                 250                 255

Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His Val Ala Arg Trp
            260                 265                 270

Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr Glu Arg Leu Ser
        275                 280                 285

Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295


<210> 282
<211> 292
<212> PRT
<213> Felis domesticus

<400> 282
Met Gly His Ala Ala Lys Trp Lys Thr Pro Leu Leu Lys His Pro Tyr
  1               5                  10                  15

Pro Lys Leu Phe Pro Leu Leu Met Leu Ala Ser Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Ile Gln Val Asn Lys Thr Val Glu Glu Val Ala Val Leu
         35                  40                  45

Ser Cys Asp Tyr Asn Ile Ser Thr Lys Glu Leu Thr Glu Ile Arg Ile
     50                  55                  60

Tyr Trp Gln Lys Asp Asp Glu Met Val Leu Ala Val Met Ser Gly Lys
 65                  70                  75                  80

Val Gln Val Trp Pro Lys Tyr Lys Asn Arg Thr Phe Thr Asp Val Thr
                 85                  90                  95

Asp Asn His Ser Ile Val Ile Met Ala Leu Arg Leu Ser Asp Asn Gly
            100                 105                 110

Lys Tyr Thr Cys Ile Ile Gln Lys Ile Glu Lys Gly Ser Tyr Lys Val
        115                 120                 125
```

```
Lys His Leu Thr Ser Val Met Leu Leu Val Arg Ala Asp Phe Pro Val
    130                 135                 140

Pro Ser Ile Thr Asp Leu Gly Asn Pro Ser His Asn Ile Lys Arg Thr
145                 150                 155                 160

Met Cys Leu Thr Ser Gly Gly Phe Pro Lys Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Glu Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Ile Ser Ser Glu Leu Asp Phe Asn Met
        195                 200                 205

Thr Asn Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly Asn Leu Leu
    210                 215                 220

Val Ser Gln Ile Phe Asn Trp Gln Lys Ser Glu Pro Gln Pro Ser Asn
225                 230                 235                 240

Asn Gln Leu Trp Ile Ile Ile Leu Ser Ser Val Val Ser Gly Ile Val
                245                 250                 255

Val Ile Thr Ala Leu Thr Leu Arg Cys Leu Val His Arg Pro Ala Ala
            260                 265                 270

Arg Trp Arg Gln Arg Glu Met Gly Arg Ala Arg Lys Trp Lys Arg Ser
        275                 280                 285

His Leu Ser Thr
    290
```

<210> 283
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus sequence

<400> 283

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
```

```
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
            180                 185                 190

Ser Gln Asp Pro Asp Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
            260                 265                 270

Val Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 284
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (6)

<223> Lys or Glu

<220>
<221> MOD_RES
<222> (8)
<223> Arg or Gly

<220>
<221> MOD_RES
<222> (14)
<223> Arg or Cys

<220>
<221> MOD_RES
<222> (18)
<223> Trp or Arg

<220>
<221> MOD_RES
<222> (19)
<223> Pro or Leu

<220>
<221> MOD_RES
<222> (20)
<223> Ser or Pro

<220>
<221> MOD_RES
<222> (27)
<223> Asp or Gly

<220>
<221> MOD_RES
<222> (55)
<223> Asn or Ser

<220>
<221> MOD_RES
<222> (60)
<223> Glu or Lys

<220>
<221> MOD_RES
<222> (69)
<223> Gln or Arg

<220>
<221> MOD_RES
<222> (101)
<223> Pro or Leu

<220>
<221> MOD_RES
<222> (106)
<223> Leu or Gln

<220>
<221> MOD_RES
<222> (110)
<223> Pro or Leu

<220>
<221> MOD_RES
<222> (113)
<223> Lys or Ser

<220>
<221> MOD_RES
<222> (120)
<223> Val or Ile

<220>
<221> MOD_RES
<222> (124)
<223> Val or Asp

<220>
<221> MOD_RES
<222> (135)
<223> Thr or Ala

<220>
<221> MOD_RES
<222> (149)
<223> Thr, Ser or deleted

<220>
<221> MOD_RES
<222> (150)
<223> Ile or deleted

<220>
<221> MOD_RES
<222> (151)
<223> Asn or Thr

<220>
<221> MOD_RES
<222> (167)
<223> Thr or deleted

<220>
<221> MOD_RES
<222> (168)
<223> Ser or deleted

<220>
<221> MOD_RES
<222> (169)
<223> Gly or deleted

<220>
<221> MOD_RES

<222> (177)
<223> Cys or Tyr

<220>
<221> MOD_RES
<222> (192)
<223> Val or Leu

<220>
<221> MOD_RES
<222> (197)
<223> Gly or Glu

<220>
<221> MOD_RES
<222> (199)
<223> Glu or Lys

<220>
<221> MOD_RES
<222> (208)
<223> Gly or Asp

<220>
<221> MOD_RES
<222> (215)
<223> His or Arg

<220>
<221> MOD_RES
<222> (218)
<223> Ala or Val

<220>
<221> MOD_RES
<222> (227)
<223> Ser or Leu

<220>
<221> MOD_RES
<222> (249)
<223> Trp, Leu or Arg

<220>
<221> MOD_RES
<222> (261)
<223> Ala or Thr

<220>
<221> MOD_RES
<222> (263)
<223> Val, Ala or Ile

<220>
<221> MOD_RES
<222> (267)
<223> Arg or Cys

<220>
<221> MOD_RES
<222> (268)
<223> Pro or Leu

<220>
<221> MOD_RES
<222> (273)
<223> Gly or Val

<400> 284

```
Met Gly His Thr Met Xaa Trp Xaa Ser Leu Pro Pro Lys Xaa Pro Cys
  1               5                  10                  15

Leu Xaa Xaa Xaa Gln Leu Leu Val Leu Thr Xaa Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Xaa Thr Ser Thr Glu Xaa Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Xaa Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Xaa Arg Ile Val Ile Xaa Ala Leu Arg Xaa Ser Asp
            100                 105                 110

Xaa Gly Thr Tyr Thr Cys Val Xaa Gln Lys Pro Xaa Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Xaa Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Xaa Xaa Xaa Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Xaa Xaa Xaa Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Xaa Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Xaa
            180                 185                 190

Ser Gln Asp Pro Xaa Thr Xaa Leu Tyr Met Ile Ser Ser Glu Leu Xaa
        195                 200                 205

Phe Asn Val Thr Asn Asn Xaa Ser Ile Xaa Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Xaa Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240
```

```
Pro Pro Ile Asp Gln Leu Pro Phe Xaa Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Xaa Ala Xaa Val Leu Tyr Xaa Xaa Ala Cys Arg His
            260                 265                 270

Xaa Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 285
<211> 303
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 285

```
Met Gly His Thr Met Lys Trp Arg Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Pro Ser Gln Leu Leu Val Leu Thr Asp Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Pro Ser Asp
            100                 105                 110

Lys Gly Thr Tyr Thr Cys Val Val Gln Lys Pro Val Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Cys Trp Leu Glu Asn Gly Glu Glu Leu Asn Ala Thr Asn Thr Thr Val
```

```
            180                 185                 190

Ser Gln Asp Pro Gly Thr Glu Leu Tyr Met Ile Ser Ser Glu Leu Gly
        195                 200                 205

Phe Asn Val Thr Asn Asn His Ser Ile Ala Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Pro Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Ala Ala Val Val Leu Tyr Arg Pro Ala Cys Arg His
            260                 265                 270

Gly Ala Arg Trp Lys Arg Thr Arg Arg Asn Glu Glu Thr Val Gly Thr
        275                 280                 285

Glu Arg Leu Ser Pro Ile Tyr Leu Gly Ser Ala Gln Ser Ser Gly
    290                 295                 300
```

<210> 286
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus sequence

<400> 286

```
Met Gly His Thr Arg Arg Gln Gly Ile Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Phe Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125
```

```
Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Ser Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Thr Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Val Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Cys Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Arg Arg Asn Glu Arg Leu Arg Arg Glu Ser Val Arg Pro Val
        275                 280                 285
```

<210> 287
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (12)
<223> Ser or Pro

<220>
<221> MOD_RES
<222> (25)
<223> Leu or Met

<220>
<221> MOD_RES
<222> (29)
<223> Ser or Pro

<220>

<221> MOD_RES
<222> (40)
<223> Lys or Arg

<220>
<221> MOD_RES
<222> (122)
<223> Glu or Asp

<220>
<221> MOD_RES
<222> (129)
<223> Glu or Lys

<220>
<221> MOD_RES
<222> (164)
<223> Thr or Ala

<220>
<221> MOD_RES
<222> (196)
<223> Glu or Gly

<220>
<221> MOD_RES
<222> (219)
<223> Lys or Arg

<220>
<221> MOD_RES
<222> (241)
<223> Asp or Asn

<400> 287

```
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Xaa Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Xaa Ala Cys Leu Xaa His Leu Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Xaa Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Xaa Lys Asp Ala Phe Lys Arg
```

```
        115                 120                 125

Xaa His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Xaa Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Xaa Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Met Cys Leu Ile Xaa Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Xaa Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 288
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 288

```
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Pro Glu Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Met Ala Cys Leu Pro His Leu Cys
             20                  25                  30

Ser Gly Val Ile His Val Thr Arg Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Pro Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Pro Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80
```

```
Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Asp Lys Asp Ala Phe Lys Gln
        115                 120                 125

Lys His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Lys Arg Ile
145                 150                 155                 160

Ile Cys Ser Ala Ser Gly Gly Phe Pro Glu Pro His Leu Phe Gly Leu
                165                 170                 175

Glu Asn Gly Glu Glu Ile Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Gly Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asp His Asn Phe Met Cys Leu Ile Arg Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asn Asn Pro Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Pro Thr Tyr Arg Phe Ala Pro Gly Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 289
<211> 288
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 289

```
Met Gly His Thr Arg Arg Gln Gly Thr Ser Pro Ser Lys Cys Pro Tyr
  1               5                  10                  15

Leu Lys Phe Phe Gln Leu Leu Val Leu Ala Cys Leu Ser His Leu Cys
             20                  25                  30
```

```
Ser Gly Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu
         35                  40                  45

Ser Cys Gly Leu Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile
     50                  55                  60

His Trp Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp
 65                  70                  75                  80

Met Asn Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr
                 85                  90                  95

Asn Asn Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly
            100                 105                 110

Thr Tyr Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg
        115                 120                 125

Glu His Leu Ala Glu Val Met Leu Ser Val Lys Ala Asp Phe Pro Thr
    130                 135                 140

Pro Ser Ile Thr Asp Phe Glu Ile Pro Pro Ser Asn Ile Arg Arg Ile
145                 150                 155                 160

Ile Cys Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Phe Trp Leu
                165                 170                 175

Glu Asn Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp
            180                 185                 190

Pro Glu Thr Glu Leu Tyr Thr Val Ser Ser Lys Leu Asp Phe Asn Met
        195                 200                 205

Thr Ala Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg
    210                 215                 220

Val Asn Gln Thr Phe Asn Trp Asn Thr Pro Lys Gln Glu His Phe Pro
225                 230                 235                 240

Asp Asn Leu Leu Pro Ser Trp Ala Ile Thr Leu Ile Ser Ala Asn Gly
                245                 250                 255

Ile Phe Val Ile Cys Cys Leu Thr Tyr Arg Phe Ala Pro Arg Cys Arg
            260                 265                 270

Glu Arg Lys Ser Asn Glu Thr Leu Arg Arg Glu Ser Val Cys Pro Val
        275                 280                 285
```

<210> 290
<211> 275
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (50)
<223> Leu or Pro

<220>
<221> MOD_RES
<222> (55)
<223> Asn or Ser

<220>
<221> MOD_RES
<222> (56)
<223> Ala or Thr

<220>
<221> MOD_RES
<222> (113)
<223> Ser or Lys

<220>
<221> MOD_RES
<222> (120)
<223> Ile or Val

<220>
<221> MOD_RES
<222> (123)
<223> Pro or deleted

<220>
<221> MOD_RES
<222> (124)
<223> Val, Asn or Asp

<220>
<221> MOD_RES
<222> (125)
<223> Leu or Glu

<220>
<221> MOD_RES
<222> (126)
<223> Lys or Asn

<220>
<221> MOD_RES
<222> (128)
<223> Ala or Ser

<220>
<221> MOD_RES
<222> (129)
<223> Tyr or Phe

<220>

<221> MOD_RES
<222> (130)
<223> Lys or Arg

<220>
<221> MOD_RES
<222> (131)
<223> Leu or Arg

<220>
<221> MOD_RES
<222> (135)
<223> Ala or Thr

<220>
<221> MOD_RES
<222> (138)
<223> Arg or Thr

<220>
<221> MOD_RES
<222> (140)
<223> Met or Ser

<220>
<221> MOD_RES
<222> (170)
<223> Asp or Gly

<220>
<221> MOD_RES
<222> (193)
<223> Asp or deleted

<220>
<221> MOD_RES
<222> (194)
<223> Gln or deleted

<220>
<221> MOD_RES
<222> (195)
<223> Asp or deleted

<220>
<221> MOD_RES
<222> (209)
<223> Variable amino acid

<220>
<221> MOD_RES
<222> (211)
<223> Val or Ala

<220>
<221> MOD_RES
<222> (252)

<223> Ile or Val

<220>
<221> MOD_RES
<222> (253)
<223> Leu or Pro

<400> 290

```
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Xaa Ser Cys Asp Tyr Xaa Xaa Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Xaa Gly Thr Tyr Thr Cys Val Xaa Gln Lys Xaa Xaa Xaa Xaa Gly Xaa
        115                 120                 125

Xaa Xaa Xaa Glu His Leu Xaa Ser Val Xaa Leu Xaa Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145                 150                 155                 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Xaa Phe Pro Glu Pro Arg Leu
                165                 170                 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
            180                 185                 190

Xaa Xaa Xaa Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
        195                 200                 205

Xaa Asn Xaa Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
    210                 215                 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225                 230                 235                 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Xaa Xaa Val Ser Gly
                245                 250                 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
```

260 265 270

Val Ala Arg
275

<210> 291
<211> 275
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 291
Met Gly His Thr Met Lys Trp Gly Ser Leu Pro Pro Lys Arg Pro Cys
1 5 10 15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
20 25 30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
35 40 45

Met Leu Ser Cys Asp Tyr Asn Ala Ser Thr Glu Glu Leu Thr Ser Leu
50 55 60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
65 70 75 80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
85 90 95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
100 105 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Val Leu Lys Gly Ala
115 120 125

Tyr Lys Leu Glu His Leu Ala Ser Val Arg Leu Met Ile Arg Ala Asp
130 135 140

Phe Pro Val Pro Ser Ile Thr Asp Ile Gly His Pro Ala Pro Asn Val
145 150 155 160

Lys Arg Ile Arg Cys Ser Ala Ser Gly Asp Phe Pro Glu Pro Arg Leu
165 170 175

Ala Trp Met Glu Asp Gly Glu Glu Leu Asn Ala Val Asn Thr Thr Val
180 185 190

Asp Gln Asp Leu Asp Thr Glu Leu Tyr Ser Val Ser Ser Glu Leu Asp
195 200 205

Ser Asn Val Thr Asn Asn His Ser Ile Val Cys Leu Ile Lys Tyr Gly
210 215 220

Glu Leu Ser Val Ser Gln Ile Phe Pro Trp Ser Lys Pro Lys Gln Glu
225 230 235 240

Pro Pro Ile Asp Gln Leu Pro Phe Trp Val Ile Ile Leu Val Ser Gly
245 250 255

Ala Leu Val Leu Thr Ala Val Val Leu Tyr Cys Leu Ala Cys Arg His
260 265 270

Val Ala Arg
275

<210> 292
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<221> MOD_RES
<222> (9)
<223> Thr or Ser

<220>
<221> MOD_RES
<222> (35)
<223> Ile or Thr

<220>
<221> MOD_RES
<222> (55)
<223> Asn or Ser

<220>
<221> MOD_RES
<222> (110)
<223> Leu or Pro

<220>
<221> MOD_RES
<222> (124)
<223> Asp or Val

<220>
<221> MOD_RES
<222> (135)
<223> Thr or Ala

<220>
<221> MOD_RES
<222> (183)
<223> Lys or Glu

<220>
<221> MOD_RES
<222> (192)
<223> Leu or Val

<220>
<221> MOD_RES
<222> (211)
<223> Met or Thr

<220>
<221> MOD_RES
<222> (215)
<223> His or deleted

<220>
<221> MOD_RES
<222> (216)
<223> Ser or deleted

<220>
<221> MOD_RES
<222> (217)
<223> Phe or deleted

<220>
<221> MOD_RES
<222> (231)
<223> Thr or Ser

<220>
<221> MOD_RES
<222> (288)
<223> Lys or Glu

<220>
<221> MOD_RES
<222> (290)
<223> Glu or Gln

<400> 292

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Met Gly His Thr Met Lys Trp Gly Xaa Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
             20                  25                  30

Ser Gly Xaa Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Xaa Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80
```

```
Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Xaa Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Xaa Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Xaa Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Xaa Glu Leu Asn Ala Thr Asn Thr Thr Xaa
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Xaa Thr Ser Asn Xaa Xaa Xaa Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Xaa Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Xaa
        275                 280                 285

Met Xaa Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 293
<211> 296
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 293

```
Met Gly His Thr Met Lys Trp Gly Thr Leu Pro Pro Lys Arg Pro Cys
  1               5                  10                  15

Leu Trp Leu Ser Gln Leu Leu Val Leu Thr Gly Leu Phe Tyr Phe Cys
```

```
            20                  25                  30

Ser Gly Ile Thr Pro Lys Ser Val Thr Lys Arg Val Lys Glu Thr Val
         35                  40                  45

Met Leu Ser Cys Asp Tyr Asn Thr Ser Thr Glu Glu Leu Thr Ser Leu
     50                  55                  60

Arg Ile Tyr Trp Gln Lys Asp Ser Lys Met Val Leu Ala Ile Leu Pro
 65                  70                  75                  80

Gly Lys Val Gln Val Trp Pro Glu Tyr Lys Asn Arg Thr Ile Thr Asp
                 85                  90                  95

Met Asn Asp Asn Pro Arg Ile Val Ile Leu Ala Leu Arg Leu Ser Asp
            100                 105                 110

Ser Gly Thr Tyr Thr Cys Val Ile Gln Lys Pro Asp Leu Lys Gly Ala
        115                 120                 125

Tyr Lys Leu Glu His Leu Thr Ser Val Arg Leu Met Ile Arg Ala Asp
    130                 135                 140

Phe Pro Val Pro Thr Ile Asn Asp Leu Gly Asn Pro Ser Pro Asn Ile
145                 150                 155                 160

Arg Arg Leu Ile Cys Ser Thr Ser Gly Gly Phe Pro Arg Pro His Leu
                165                 170                 175

Tyr Trp Leu Glu Asn Gly Lys Glu Leu Asn Ala Thr Asn Thr Thr Leu
            180                 185                 190

Ser Gln Asp Pro Glu Thr Lys Leu Tyr Met Ile Ser Ser Glu Leu Asp
        195                 200                 205

Phe Asn Met Thr Ser Asn His Ser Phe Leu Cys Leu Val Lys Tyr Gly
    210                 215                 220

Asp Leu Thr Val Ser Gln Thr Phe Tyr Trp Gln Glu Ser Lys Pro Thr
225                 230                 235                 240

Pro Ser Ala Asn Gln His Leu Thr Trp Thr Ile Ile Ile Pro Val Ser
                245                 250                 255

Ala Phe Gly Ile Ser Val Ile Ile Ala Val Ile Leu Thr Cys Leu Thr
            260                 265                 270

Cys Arg Asn Ala Ala Ile Arg Arg Gln Arg Arg Glu Asn Glu Val Lys
        275                 280                 285

Met Glu Ser Cys Ser Gln Ser Pro
    290                 295
```

<210> 294
<211> 26
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 294
Asn Lys Asp Ser Lys Met Val Val Ala Ile Leu Pro Gly Lys Val Gln
1 5 10 15

Val Phe Pro Glu Tyr Lys Asn Lys Thr Ile
20 25

<210> 295
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 295
Gln Lys Asp Ala Lys Met Val Leu Ala Ile Leu Pro Gly Arg Val Gln
1 5 10 15

Met Trp Pro Glu Tyr Lys Gln Arg Thr Ile
20 25

<210> 296
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic FLAG tag

<400> 296
Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 297
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative conserved peptide

<400> 297
Met Tyr Pro Pro Pro Tyr
1 5

<210> 298
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative non-dimerizing Ig-Fc domain

<400> 298
Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
1 5 10

<210> 299
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Poly-His tag

<400> 299
His His His His His His
1 5

<210> 300
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative factor Xa cleavage site

<400> 300
Ile Glu Gly Arg
1

<210> 301
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 301
Pro Lys Ser Ser Asp Lys Thr His Thr Ser Pro Pro Ser Pro
1 5 10

<210> 302
<211> 46
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 302
acacatagcg ccggcgctag ctgagcaaaa ggccagcaaa aggcca 46

<210> 303
<211> 60
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 303
aactctgtga gacaacagtc ataaatgtac agatatcaga ccaagtttac tcatatatac 60

<210> 304
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 304
ggcttctcac agagtggcgc gccgtgtctc aaaatctct 39

<210> 305
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 305
ttgctcagct agcgccggcg ccgtcccgtc aagtcagcgt 40

<210> 306
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 306

agatctgttt aaaccgctga tcagcctcga ctgtgccttc 40

<210> 307
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 307
acctctaacc actctgtgag aagccataga gcccaccgca 40

<210> 308
<211> 53
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 308
ggatccggta cctctagaga attcggcggc cgcagatctg tttaaaccgc tga 53

<210> 309
<211> 63
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 309
ggatccactc atctagaaca atggtaccaa tacgaattcg gcggccgcag atctgtttaa 60
acc 63

<210> 310
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus
terminator sequence

<400> 310
atcaaaatta ggaaga 16

<210> 311
<211> 15
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative
silent variation oligonucleotide

<400> 311
atgggacata cgatg 15

<210> 312
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Illustrative
peptide

<400> 312
Leu Tyr Pro Pro Pro Pro Tyr
1 5